

ABSTRACT OF THE DISCLOSURE

~~This invention relates to a~~ A process for manufacturing a refractory material, a protective coating, and uses ~~of this process and this coating thereof~~. The process ~~comprises~~ includes the following steps: a) ~~deposit~~ depositing on the surface of a substrate or in a mould a first dispersion containing at least one metallic compound chosen from among borides, carbides and borocarbides containing at least one transition metal, in powder form, and a resin with a coke mass content equal to at least 30% after carbonization; b) ~~[[dry]]~~ drying the resulting deposit; c) ~~cross-link~~ cross-linking the resin; d) ~~carbonize~~ carbonizing the resin under an inert atmosphere; e) ~~cover~~ covering the deposit with a second dispersion containing Si in powder form and a binder; and f) ~~heat~~ heating the deposit to a temperature greater than or equal to the melting temperature of Si, under an inert atmosphere.

~~Applications: manufacture of propulsion parts and fuselage and wing elements for aerospace and aeronautical applications; manufacture of heat exchangers for thermal power stations; metallurgy; chemical industry; etc.~~